

## CLAIMS

- [1]           A Stirling engine comprising:
- a cylinder;
  - a piston reciprocatably disposed inside the cylinder;
  - a displacer that reciprocates with a phase difference relative to the piston;
  - a linear motor that drives the piston; and
  - a pressure vessel that encloses the cylinder, the piston, and the linear motor,
- wherein the pressure vessel has a division portion formed therein, the division portion being located closer to where the displacer is disposed than to a piston support end of the linear motor.
- [2]           The Stirling engine of claim 1,
- wherein the division portion is located in a central portion of the linear motor along an axis thereof.
- [3]           A Stirling engine comprising:
- a cylinder;
  - a cylinder reciprocatably disposed inside the piston;
  - a displacer that reciprocates with a phase difference relative to the piston;
  - a linear motor that drives the piston; and
  - a pressure vessel that encloses the cylinder, the piston, and the linear motor,
- wherein the pressure vessel has a division portion formed therein, the division portion being formed into a shape that permits both temporary sealing for sealing with a seal member and final sealing for sealing with welding.

- [4]           The Stirling engine of claim 3,  
wherein, in the division portion,  
a flange-shaped portion is formed on at least one pressure vessel body,  
a seal member placement clearance is formed in the flange-shaped portion, and  
a welding position is located around an outer circumference of the flange-shaped  
portion.
- [5]           The Stirling engine of claim 3 or 4,  
wherein the division portion is located closer to where the displacer is disposed than to  
a piston support end of the linear motor.
- [6]           The Stirling engine of claim 5,  
wherein the division portion is located in a central portion of the linear motor along an  
axis thereof.